OUTLOOK ON AGRICULTURE

VOLUME 7 1972–73

Author Index

Baranyovits F The increasing problem of aphids in agriculture and horticulture. 102
Barnes J M. Toxicology of agricultural chemicals. 97
Berbigier A. *See* Doussinault G. 222
Britton D K. British cereals and the European Common Market. 124
Brown I A, Quantrill R A. The role of minimal tillage in rice in Asia, with particular reference to Japan. 179
Calderbank A. Environmental considerations in the development of diquat and paraquat as aquatic herbicides. 51
Camus P *See* Damour L. 162
Cannell R Q, Finney J R. Effects of direct drilling and reduced cultivation on soil conditions for root growth. 184
Damour L, Camus P, Garreau J, Lesage B, Jeannin B. Research into farming techniques applicable to the marshland soils of Western France. 162
Doussinault G, Berbigier A, Pollacsek M. Trends in cereal breeding in France. 222
Evans T Swedes and turnips in upland situations. 171
Flecchia P E. Conservation and improvement of natural resources at Henley Manor Farm. 218
Fletcher I C. *See* Stonebridge W C. 155
Finney J R. *See* Cannell R Q. 184
Gard L E, McKibben G E. "No-till" crop production proving a most promising conservation measure. 149
Garreau J. *See* Damour L. 162
Goedegebure J. *See* Spoor P A. 117
Hall D W. Environmental problems: pests of harvested tropical crops. 68
Hawkins A F. Control of algae. 21
Hill J, Lloyd L S, Wheeler A F J. Post-emergence weed control in maize with paraquat. 227
Humbert R P. Mechanization of sugar cane harvesting 10
Jeannin B. *See* Damour L. 162
Jones D I H. The chemistry of grass for animal production. 32
Koronka P Machinery development for direct drilling. 190
Lamb H H. Climatic change and foresight in agriculture: the possibilities of long-term weather advice. 203
Lefroy D B. *See* Stonebridge W C. 155
Leonard W F. Direct drilling of chou moellier in New Zealand. 168
Lesage B. *See* Damour L. 162
Lloyd L S. *See* Hill J. 227
McKibben G E. *See* Gard L E. 149
Marrs G J, Middleton M R. The formulation of pesticides for convenience and safety 231
Metcalf R L. A model ecosystem for the evaluation of pesticide biodegradability and ecological magnification. 55
Middleton M R. *See* Marrs G J. 231
Quantrill R A. *See* Brown I A. 179
Pollacsek M. *See* Doussinault G. 222
Rogers S J, Ross G. On increasing the size of farm business in the United Kingdom. 128
Ross G. Economics of grass conservation in relation to quality. 39
Ross G. *See* Rogers, S J. 128
Scott R K, Younger A. Potato agronomy in a changing industry 3
Smith L P. The effect of weather, drainage efficiency and duration of spring cultivation on barley yields in England. 79
Spoor P A, Goedegebure J. EEC entry and the UK fruit industry in the light of Dutch experience. 117
Stapley J H. Insect pests of coconuts in the Pacific Region. 211
Stonebridge W C, Fletcher I C, Lefroy D B. "Spray-Seed": the Western Australian direct sowing system. 155
Taylor K D. The rodent problem. 60
Taylor L R. Monitor surving for migrant insect pests. 109
Toosey R D. Stubble catch-cropping with brassicae. 175
Turner J N. Practical uses of gibberellins in agriculture and horticulture. 14
Wheeler A F J. *See* Hill, J. 227
Willson K C. Paraquat, mulch and the mineral nutrition of tea. 74
Wolfe M S. The forced evolution of cereal disease. 27
Wright N. The pattern of pesticide regulation in Western Europe. 91
Young H M. 'No-tillage' farming in the United States: its profit and potential. 143
Younger A. *See* Scott R K. 3

Book Reviews and Notices

(R) = full review

Agrawal R C, Heady E O. Operations research methods for agricultural decisions. 199
Agricultural Research Organization, Israel. Phytoparasitica. Israel journal of plant protection sciences. 243
Alix J C. How to encourage fertilizer use in a developing country: tackling the problem of extension. 139
Allo A V Principles of pasture management in temperate regions. 88
Anderson W P (Editor). Ion transport in plants. 238 (R)
Andrews S. Agriculture and the Common Market. 138 (R)
Åppelqvist L A, Ohlson R (Editors). Rapeseed: cultivation, composition, processing and utilization. 237 (R)
Arnon I. Crop production in dry regions. Volume 1: background and principles. 46 (R)
Arnon I. Crop production in dry regions. Volume 2: systematic treatment of the principal crops. 196 (R)
Ashton F M, Crafts A S. Mode of action of herbicides. 240 (R)
ASPAC. Fertilizer subsidies and their place in the agricultural economy. 88
Association d'Acridologie. Acrida. 88
Baker S. Milk to market: forty years of milk marketing. 243
Baron P J, Cowie W J G, Hughes D R, Lesser D. Housewives' attitudes to meat. 243
Baver L D, Gardner H, Gardner W R. Soil physics. 138 (R)
Bennett T A, Carmichael J S *et al.* Spring Outlook: crops, March 1973. 139
Bennett T A *et al.* Situation '72, Outlook '73. 139
Bindra O S, Singh H. Pesticide application equipment. 47 (R)
Biologische Bundesanstalt für Land- und Forstwirtschaft. Obstkrankheiten. 88
Brown D C. Silage maker's handbook. 140
Brown L R. World without borders. 87 (R)
Byrde R J W, Cutting C V (Editors). Fungal pathogenicity and the plant's response. 241 (R)
Canada Dept. of Agric. Proceedings: 1972 Canadian Outlook Conference. 139
Cárdenas J, Reyes C E, Doll J D. Tropical weeds: malezas tropicales. 140
Carleton R M. False prophets of pollution: how fake ecologists sidetrack America's progress. 240 (R)

Carter W. Insects in relation to plant disease. 241 (R)
Centre for Overseas Pest Research. Final report of the Anti-Locust Research Centre 1970–1971. 244
Centre for Overseas Pest Research. Report of the Centre for Overseas Pest Research 1971–1972. 244
Clayden B. Soils of the Exeter District. 48
Cooke G W. Fertilizing for maximum yield. 198 (R)
Cooke G W. The control of soil fertility. 139
Cooper M McG, Morris D W. Grass farming. 242
Cox P R, Peel J (Editors). Population and pollution. 48
Crane E (Editor). Pollination of seed crops. 139
Crown R W, Heady E O. Policy integration in Canadian agriculture. 140
Davies D B, Eagle D J, Finney J B. Soil management. 196 (R)
Dench J A L, Giles A K and others. Break crops: an economic study in Southern England with a technical appraisal from A.D.A.S. 88
Dodsworth T L. Beef production. 140
Draycott A P. Sugar-beet nutrition. 135 (R)
Ebling F J, Heath G W (Editors). The future of man. 48
Edwards A M, Wibberley G P. An agricultural land budget for Britain 1965–2000. 87 (R)
Emden H F van (Editor). Aphid technology: with special reference to the study of aphids in the field. 86 (R)
Emden H F van (Editor). Insect/plant relationships. 137 (R)
FAO. Effects of intensive fertilizer use on the human environment: report of the expert consultation convened at FAO, Rome, 1972. 200
Fidler J C, Wilkinson B G, Edney K L, Sharples R O. The biology of apple and pear storage. 243
Finney D J. An introduction to statistical science in agriculture. 199
Foth H D, Turk L M. Fundamentals of soil science. 88
Fryer J D, Makepeace R J. Weed control handbook. Volume II. Recommendations including plant growth regulators. 199
Furness R R. Soils in Cheshire I (Crewe West). 45 (R)
Fussell G E. Crop nutrition: science and practice before Liebig. 85 (R)
Gauch H G. Inorganic plant nutrition. 85 (R)
Geus, J G de. Fertilizer guide for the tropics and subtropics. 238 (R)
Gibson U P, Singer R D. Water well manual. 48
Giles A K, Marsh J S. Farm management and the EEC: a survey of F.M.A. attitudes and knowledge. 139
Gittinger J P. Economic analysis of agricultural projects. 84 (R)
Godlin V J, Spensley P C. Oils and oilseeds. 88
Goodwin D H. Pig management and production: a practical guide for farmers and students. 200
Goring C A I, Hamaker J W (Editors). Organic chemicals in the soil environment. 200
Griffin D M. Ecology of soil fungi. 138 (R)
Griffith E J, Beeton A, Spencer J M, Mitchell D T (Editors). Environmental phosphorus handbook. 243
Guia E O de. A comparative study of fertilizer distribution systems in five developing countries. 200
Hall D W Handling and storage of food grains in tropical and sub-tropical areas. 47 (R)
Hargett N L. 1972 fertilizer summary data. 200
Harrod T R. Soils in Devon I (Honiton). 45 (R)
Hayami Y, Ruttan V W. Agricultural development: an international perspective. 46 (R)
Hutchinson, Sir Joseph. Farming and food supply. 46 (R)
Heiser C B. Seed to civilization: the story of man's food. 242
Hodgson J M. Soils of the Ludlow District. 200
Houck J P, Ryan M E, Subotnik A. Soybeans and their products: markets, models and policy. 242
Hsi L C, Su N R. Soils of the ASPAC Region. Part 1, Taiwan. 199
Humphreys L R. The interaction of pasture stocking rate and fertilizer needs. 139
Imperial Chemical Industries Ltd. Rape seed production. 242
International Institute of Tropical Agriculture. 1971 report. 242
Jacoby E H. Man and land: the fundamental issue in development. 85 (R)
John Innes Institute sixty-third annual report 1972. 242
Johnson G L, Quance C L (Editors). The overproduction trap in US agriculture. 134 (R)
Jones F G W, Dunning R A. Sugar beet pests. 140
Jones R J. The place of legumes in tropical pastures. 140
Kado C I, Agrawal H O (Editors). Principles and techniques in plant virology. 137 (R)
Kirkham D, Powers W L. Advanced soil physics. 48
Leagans J P, Loomis C P (Editors). Behavioral change in agriculture: concepts and strategies for influencing transition. 134 (R)
Lee K E, Wood T G. Termites and soils. 48.
Long Ashton Research Station Report 1972. 242
Lowe A D (Editor). Perspectives in aphid biology. 244
Lupton F G H, Jenkins G, Johnson R (Editors). The way ahead in plant breeding. 139
Macvicar C N. Soils of the sugar industry. 199
Maddra C G. Profitable farming: ICI recorded farms 1972 crop year. 243
Marsh R W (Editor). Systemic fungicides. 136 (R)
Martin H (Editor). Insecticide and fungicide handbook for crop protection. 199
Martin H (Editor). Pesticide manual: basic information on the chemicals used as active components of pesticides. 199
Martin H. The scientific principles of crop protection. 243
Ministry of Agriculture, Fisheries & Food. Fertilizer recommendations: agricultural and horticural crops. 239 (R)
Mohr E C J, Baren F A van, Schuylenborgh J van. Tropical soils: a comprehensive study of their genesis. 237 (R)
National Vegetable Research Station Annual Report 1972. 242
Odum H T. Environment, power and society. 48
Ordish G. The great wine blight. 140
Palmer R C. Soils in Herefordshire III. 200
Phillips S H, Young H M. No-tillage farming. 236 (R)
Pirie N W (Editor). Leaf protein: its agronomy, preparation, quality and use. 48
Purseglove J W. Tropical crops: monocotyledons. 84 (R)
Pyke M. Technological eating or where does the fish finger point? 48
Rajki S (Editor). Proceedings of a colloquium on the winter hardiness of cereals 1972. 242
Rajki S (Editor). The first twenty years of Martonvásár. 48
Rees A R, Cockshull K E, Hand D W, Hurd R G (Editors). Crop processes in controlled environments. 134 (R)
Roberts E H (Editor). Viability of seeds. 47 (R)
Roberts D A, Boothroyd C W. Fundamentals of plant pathology. 140
Robson J D, George H. Soils in Nottinghamshire I (Ollerton). 45 (R)
Samish R M (Editor). Recent advances in plant nutrition. 198 (R)
Smith K M. A textbook of plant virus diseases. 136 (R)
Spedding C R W, Diekmahns E C (Editors). Grasses and legumes in British agriculture. 84 (R)
Steward F C, Krikorian A D. Plants, chemicals and growth. 48
Stier H. Fertilizer distribution in the Ivory Coast. 200
Stover R H. Banana, plantain and abaca diseases. 135 (R)
Sturdy R G. Soils in Essex I (Harold Hill). 45 (R)
Sturrock F G, Thompson M C. Sugar beet: a study of sugar production in the UK and the feasibility of expansion. 88
Tahori A S (Editor). Pesticide chemistry: proceedings of the second international IUPAC congress. 239 (R)
Taylor S A. Physical edaphology: the physics of irrigated and non-irrigated soils. 197 (R)
Thomasson A J. Soils of the Melton Mowbray District. 45 (R)
Tivy J (Editor). The organic resources of Scotland. 236 (R)

Toosey R D. Profitable fodder cropping. 198 (R)
United Nations. Recent developments in the fertilizer industry: report of the second inter-regional fertilizer symposium held at Kiev and New Delhi, 1971. 200
United Oilseeds Ltd. Oilseed rape. 242
University of Nottingham School of Agriculture report 1971–1972. 88
Upton M. Farm management in Africa. 236 (R)
Vahlquist B (Editor). Nutrition: a priority in African development. 199
Wardlaw C W. Banana diseases including plantains and abaca. 244
Weaver R J. Plant growth substances in agriculture. 196 (R)
Webster J M (Editor). Economic nematology. 86 (R)
Weiss E A. Castor, sesame and safflower. 87 (R)
Whitfield W A D. Soils in Herefordshire II (Ross-on-Wye West). 45 (R)
Wigglesworth V B. The principles of insect physiology. 244
Wilkinson J M, Tayler J C. Beef production from grassland 200
Willrich T L, Smith G E. Agricultural practices and water quality. 45 (R)
Wit C T de, Keulen H van. Simulation of transport processes in soils. 197 (R)

Subject Index

Algae
  control of. 21
Aphids
  in agriculture and horticulture. 102
  resistance to chemicals. 104
  migration surveying. 109
Apples
  gibberellins. 18
  EEC entry and UK fruit industry. 117
Artichokes
  gibberellins. 18

Celery
  gibberellic acid. 19
Cereals
  forced evolution of diseases. 27
  effect of weather, etc. on barley yields in England. 79
  aphids. 102
  British cereals and the EEC. 124
  direct drilling in W Australia. 144
  effect of direct drilling on yields. 187
  cereal breeding in France. 222
  post-emergence weed control in maize. 227
Citrus
  gibberellic acid. 17
Cocoa
  rodent damage. 64
Coconuts
  rodent damage. 64
  insect pests in the Pacific. 211
Conservation
  improvement of natural resources on farm. 218
Cucumbers
  gibberellins. 19
Cultivation (*see* minimum tillage)

DDT
  evaluation in model ecosystem. 55
  toxicology. 99
Direct drilling (*see* minimum tillage)

Editorials
  Agricultural chemicals as ecological tools. 2
  A balanced approach. 50
  To see ourselves as others see us. 90
  Jethro Tull 1674–1740. 202

Farm economics
  EEC entry and UK fruit industry. 117
  British cereals and the EEC. 124
  increasing the size of farm business in the UK. 128
Fertilizers
  in potato production. 8
  phosphate in tea nutrition. 76
  effects of cultivation on nutrient distribution in soil. 186
Forage crops
  direct drilling of chou moellier in New Zealand. 168
  direct drilling of swedes and turnips in upland situations in Wales. 171
  stubble catch-cropping with brassicae. 175
Forestry
  rodent damage. 64

Gibberellins
  in agriculture and horticulture. 14
Grass, grassland
  chemistry of, for animal production. 32
  economics of conservation. 39
  grassland renovation in Australia by direct drilling. 155

Herbicides
  aquatic. 25, 51
  for no tillage technique. 146

Minimum tillage
  in USA. 143, 149
  in Western Australia. 155
  in Western France. 162
  in New Zealand. 168
  in Wales. 171
  in SW England. 175
  in rice in Japan. 179
  effect on soil. 184
  machinery. 190
Moths
  migration surveying. 109

Oil palm
  rodent damage. 64

Paraquat
  desiccant for sugar cane. 11
  diquat and paraquat as aquatic herbicides. 51
  mulch and the mineral nutrition of tea. 74
  no tillage in USA. 147, 149
  direct drilling cereals and pasture in Western Australia. 155
  minimum tillage in rice in Japan. 179
  post-emergence weed control in maize. 227
Pears
  gibberellic acid. 17
  EEC entry and UK fruit industry. 117
Pesticides
  model ecosystem for pesticide evaluation. 55
  pesticide regulations in W Europe. 91
  toxicology of agricultural chemicals. 97
  formulation of, for convenience and safety. 231
Potatoes
  changes in production techniques. 3

Rhubarb
  gibberellins. 19
Rice
  algal weeds. 25
  rodent damage. 61
  minimum tillage in Japan. 179
Rodents
  damage to stored produce and crops. 61

Sheep
  chemistry of grass for. 32
Soil
  erosion reduced by no-till. 149
  farming on marshland in W France. 162
  conditions for root growth. 184
Soya beans
  double cropping with corn/wheat. 145, 153
Strawberries
  gibberellic acid. 19
Sugar beet
  crop sampling for yellows. 114.
  effect of direct drilling on yield. 188
Sugar cane
  mechanization of harvesting. 10
  rodent damage. 63

Tea
  paraquat, mulch and mineral nutrition. 74
Toxicology
  of agricultural chemicals. 97
Tropical crops
  harvested, pests of. 68

Vines
  gibberellic acid. 16

Weather
  effect on barley yields in England. 79
  possibilities of long-term advice. 203